(54) Title: METHOD FOR BISPECTRAL PICKING OF ANELLIPTICAL NMO CORRECTION PARAMETERS
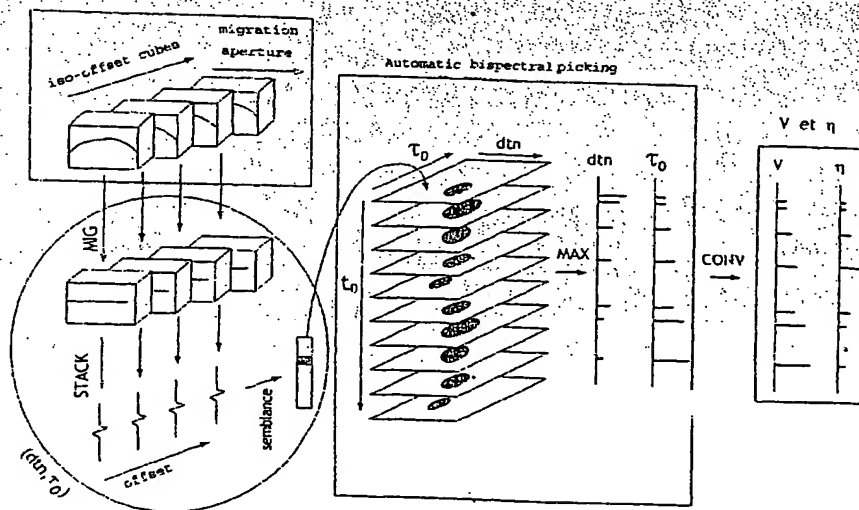
(57) Abstract: Method of determining the velocity V and anellipticity η parameters for processing seismic traces in a common midpoint (CMP) gather comprising: -a preliminary step to define a plurality of nodes (dtn, τ_0) - for each node (dtn, τ_0) defined in the preliminary step, the following steps: - for static NMO correction of traces in the CMP gather as a function of the values of the said parameters dtn and τ_0 at the node considered, and calculation of the semblance function associated with the said NMO correction for the node considered; and - for each picked time t_0, a step including determination of the maximum semblance node (dtn(t_0), τ_0 (t_0)) - and a final step to convert the dtn (t_0) and τ_0(t_0) parameters, so as to obtain the velocity (t_0) and anellepticity η(t_0) laws.